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| EXAMINER |
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TECCO, ANDREW M

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| ART UNIT | PAPER NUMBER |
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3764

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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|------------------------------|--------------------------------------|-----------------------------------|--|
| Office Action Summary | Application No. 10/598,074 | Applicant(s) OGG ET AL. | |
| | Examiner Andrew M. Tecco | Art Unit 3764 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Examiner acknowledges receipt of applicant's response filed on 20 November 2008. Claims 1-17 are pending and an action on the merits follows.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. **Claims 12** is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
4. **Claim 12** recites the limitation "the processor" in line 6 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.
6. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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7. **Claims 1-2 4-8, 10-14, and 17** are rejected under 35 U.S.C. 103(a) as being unpatentable over **McHugh (US Patent 6,230,047 B1)** in view of **Huish et al. (US Patent 5,879,270)** hereinafter referred to as **Huish**.

Regarding claim 1, McHugh discloses an audio interval training device **(10)**, comprising:

a sensing unit **(20)** to obtain a parameter of a user in physical exercise;

a memory **(32 – memory, col. 4 line 67)** to store a plurality of audio signals **(col. 4 line 65—col. 5 line 5)**, each having a predetermined tempo value; and

a processing unit **(32 – processor chip, col. 4 line 66)** configured receive the parameter from the sensing unit **(col. 4 lines 3-6)**, to receive a first and second target parameter value **(20)**, select a first **(col. 5 lines 61-67)** and second **(col. 6 lines 1-6)** audio signals having a respective tempo, corresponding to the first and second target parameter values **(col. 5 line 61 – col. 6 line 6)**, rendering the first audio signal to the user at least until the processor determines the parameter has achieved the first parameter value **(col. 5 lines 61-67)**, and rendering the second audio signal to the user at least until the processor determines the parameter has achieved the second parameter value **(col. 6 lines 1-6)**.

McHugh discloses using audio signals to encourage a change in the heartbeat of the user to achieve certain parameters, but fails to disclose alternating the rendering of the first and second audio signals according to (4) and (5) of claim 1.

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However, Huish teaches an exercising device with a sensing unit **(26)** that encourages a change in the heartbeat of the user to achieve certain parameters, wherein the processing unit **(25, 35)** alternates the rendering of the first and second encouragement stimulus **(Abstract - raising and lowering elevation of treadmill)** according to: rendering the first encouragement stimulus to the user at least until the processor determines the parameter has achieved the first parameter value, and rendering the second encouragement stimulus to the user at least until the processor determines the parameter has achieved the second parameter value **(figs. 5A and 5B)**.

Given the teachings of Huish, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the processor of the first and second audio signal training device of McHugh with the interval training processor of Huish. Doing so would enable the user to easily alternate between raising and lowering their heart rate and provide for a more effective workout.

Regarding claim 2, McHugh discloses the parameter is a pulse rate **(20)**.

Regarding claim 4, McHugh discloses the tempo comprises a beat **(col. 5 lines 1-6)**. McHugh doesn't disclose the beat per minute values of such rhythms, but it is inherent to any beat/rhythm that it has a beat per minute value.

Regarding claim 5, McHugh discloses the sensing unit is a heart rate monitor **(20)** or a timer device.

Regarding claim 6, McHugh discloses a respective audio signal is rendered to the user until the user's heart rate reaches the first or second target heart rate, as determined by the processing unit using a received heart rate from the heart rate monitor (**col. 5 line 61—col. 6 line 6**).

Regarding claim 7, McHugh discloses the sensing unit and the processing unit are connected in a wired or wireless way (**#22, 26, 30; col. 4 lines 60-68**).

Regarding claim 8, McHugh discloses the first and second target parameter value include target parameter value selected by a user or a programmed exercise routine (**col. 5 line 61—col. 6 line 6**).

Regarding claim 10, McHugh discloses the tempo values of the plurality of audio signal are determined by the audio interval training device (**col. 5 lines 1-6**). The examiner is broadly interpreting the term “tempo value” to mean an inherent property of a beat or rhythm that relates to a general speed at which a sound occurs.

Regarding claim 11, McHugh discloses that the invention may further comprise a musical playback device such as a MP3 player (**col. 2 lines 9-11**). While McHugh does not specifically disclose using MP3 files for the audio signals, it would have been

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obvious to one of ordinary skill in the art at the time the invention was made to incorporate MP3 files as an encoding means of the audio signals.

MP3 files were common and well known in the art at the time the invention was made as a means of encoding audio signals and as suggested by McHugh, could have been incorporated into the invention of McHugh. Doing so would allow the device to carry a relatively high quality sound for the beat and rhythm signals without having to utilize a large amount of memory.

Regarding claim 12, McHugh discloses an audio interval training method, comprising:

receiving a first (**col. 5 lines 61-67**) and second (**col. 6 lines 1-6**) target parameter value;

receiving a parameter (**22**) of a user in physical exercise from a sensing unit (**20**);
selecting a first and second audio signal having respective tempos (**col. 5 line 61 – col. 6 line 6**), corresponding to the first and second target parameter values; and
having a respective audio signal rendered to the user corresponding to the first and second target parameter value, as determined by a processing unit (**32 – processor chip, col. 4 line 66**) using the parameter from the sensing unit (**col. 5 line 61 – col. 6 line 6**).

McHugh discloses using audio signals to encourage a change in the heartbeat of the user to achieve certain parameters, but fails to disclose wherein the processing unit

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alternatively renders the first audio signal to the user at least until the processor determines the parameter has achieved the first parameter value and the second audio signal to the user at least until the processor determines the parameter has achieved the second parameter value.

However, Huish teaches an exercising device with a sensing unit **(26)** that encourages a change in the heartbeat of the user to achieve certain parameters, wherein the processing unit **(25, 35)** alternates the rendering of the first and second encouragement stimulus **(Abstract - raising and lowering elevation of treadmill)** according to: rendering the first encouragement stimulus to the user at least until the processor determines the parameter has achieved the first parameter value, and rendering the second encouragement stimulus to the user at least until the processor determines the parameter has achieved the second parameter value **(figs. 5A and 5B)**.

Given the teachings of Huish, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method and processor of the first and second audio signal training device of McHugh with the interval training method and processor of Huish. Doing so would enable the user to easily alternate between raising and lowering their heart rate and provide for a more effective workout.

Regarding claim 13, McHugh discloses a programmed exercise routine that includes a first and second target parameter **(col. 5 line 61 – col. 6 line 6)**.

Regarding claim 14, McHugh discloses that the invention may further comprise a musical playback device such as a MP3 player (**col. 2 lines 9-11**). While McHugh does not specifically disclose using MP3 files for the audio signals, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate MP3 files as an encoding means of the audio signals. MP3 files were common and well known in the art at the time the invention was made and as suggested by McHugh, could have been incorporated into the invention of McHugh. Doing so would allow the device to carry a relatively high quality sound for the beat and rhythm signals without having to utilize a large amount of memory.

Regarding claim 17, McHugh discloses the parameter is a pulse rate (**20**)

8. **Claim 3** is rejected under 35 U.S.C. 103(a) as being unpatentable over **McHugh (US Patent 6,230,047 B1)** in view of **Huish et al. (US Patent 5,879,270)** hereinafter referred to as **Huish** in further view of **Stubbs et al. (US Patent 6,736,759)** hereinafter referred to as **Stubbs**.

Regarding claim 3, McHugh discloses a clock input for providing a trigger signal, but fails to specifically disclose that the parameter comprises a time-interval.

However, Stubbs teaches using a time-interval of the device usage as a parameter for alerting the user to perform at a greater or lesser amount of intensity (**col. 24 lines 30-41**).

Given the teachings of Stubbs, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the “period of time” interval training feature of Stubbs with the heart rate interval training of McHugh in view of Huish. Doing so would allow the user to train to run for particular patterns of time.

9. **Claims 9, 15 and 16** are rejected under 35 U.S.C. 103(a) as being unpatentable over **McHugh (US Patent 6,230,047 B1)** in view of **Huish et al. (US Patent 5,879,270)** hereinafter referred to as **Huish** in further view of **Curtin (US Patent 5,986,200)**.

Regarding claim 9, McHugh in view of Huish teaches a plurality of audio signals that provide a beat and rhythm, but fails to teach that the audio signals are annotated with their beat per minute value.

However, Curtin teaches an audio device that has audio signals with annotated beat per minute values (**col. 3 lines 51-58; fig. 2 #45; col. 5 lines 30-45**).

Given the teachings of Curtin, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the annotated beat per minute value of Curtin with the audio signals of McHugh. Doing so would enable the user to better know the rate at which they were exercising.

Regarding claim 15, McHugh in view of Huish discloses a means for storing a plurality of rhythm pattern data (**McHugh - 32**) and a means for selecting a preprogrammed rhythm (**McHugh - 34**), but fails to disclose the step of, selecting at

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least one of a further audio signal having respective tempos similar to the first and second audio signals.

However, Curtain teaches a method by which a first set of audio signals are swapped out by the personal training device for a different but similar set of audio signals (**verse shuffle mode - col. 4 lines 20-35**). Furthermore, Curtain teaches the use of a track shuffle (**49**) which would further render similar but different audio signals at predetermined periods of time.

Given the teachings of Curtain, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the beat and rhythm audio signals of McHugh in view of Huish with the additional audio signals, music, and verse shuffle mode of Curtain. Doing so would provide considerably more user listening options than a required fixed length playback generally associated with conventional playback devices.

Wherein McHugh in view of Huish in view of Curtain may not specifically disclose a total of three audio signals, it would have been obvious to one of ordinary skill in the art at the time of the invention to do so, as it is common and well known in the field of music to have songs with more than three verses, which according to the disclosure of Curtain, would have provided at least three different, but similar audio signals.

Regarding claim 16, McHugh in view of Huish discloses a means for storing a plurality of rhythm pattern data (**McHugh - 32**) and a means for selecting a

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preprogrammed rhythm (**McHugh - 34**), and rendering a first and second audio signal (**col. 5 line 61 – col. 6 line 6**), but fails to disclose the step of, at a predetermined time, rendering at least one of a further audio signal in place of the first and second audio signals.

However, Curtain teaches a method by which a first set of audio signals are swapped out by the personal training device for a different but similar set of audio signals (**verse shuffle mode - col. 4 lines 20-35**). Furthermore, Curtain teaches the use of a track shuffle (**49**) which would further render similar but different audio signals at predetermined periods of time.

Given the teachings of Curtain, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the beat and rhythm audio signals of McHugh in view of Huish with the additional audio signals, music and verse shuffle mode of Curtain. Doing so would provide considerably more user listening options than a required fixed length playback generally associated with conventional playback devices.

Wherein McHugh in view of Huish in view of Curtain may not specifically disclose a total of three audio signals, it would have been obvious to one of ordinary skill in the art at the time of the invention to do so, as it is common and well known in the field of music to have songs with more than three verses, which according to the disclosure of Curtain, would have provided at least three different, but similar audio signals.

Response to Arguments

10. Applicant's arguments filed 20 November 2008 have been fully considered but they are not persuasive.

11. Applicant's arguments with respect to claims 1-17 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew M. Tecco whose telephone number is 571-270-3694. The examiner can normally be reached on 5/4/9; 8-5 M-R 1st Fri off, 2nd Fri 8-4.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, LoAn Thanh can be reached on 571-272-4966. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew M Tecco/
Examiner, Art Unit 3764

/Fenn C Mathew/
Primary Examiner, Art Unit 3764
February 15, 2009

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